

What is claimed is:

1. A method for creating and maintaining a user profile database and a related value rating database for a plurality of information sources comprising the steps of:
  - a) receiving fixed information for each of a plurality of users;
  - b) initializing profiles for each of said users in said user profile database with said fixed information;
  - c) monitoring a user and receiving monitored information relating to said user;
  - d) determining if said monitored information relates to a particular information source and, if so, determine a value rating for said particular information source in accordance with said monitored information;
  - e) creating an updated profile for said user in said profile database in accordance with said monitored information; and
  - f) if a value rating is determined, associating said value rating with said updated user profile and recording said value rating in said related value rating database.
2. A method as described in claim 1 where said updated profile includes information selected from said monitored information and used to determine said value rating.
3. A method as described in claim 1 where said updated profile includes said value rating.
4. A method as described in claim 1 where said updated profile includes search queries said user has submitted to an information source.
5. A method as described in claim 1 where said updated profile includes said user's interaction history with regard to an information source.

6. A method as described in claim 1 where said fixed information includes answers to survey questions.
7. A method as described in claim 1 where said databases are created and maintained by a trusted third party system.
8. A method as described in claim 1 where said value rating is multi-valued.
9. A method as described in claim 1 where said monitoring step is selectively enabled by said user.
10. A method as described in claim 1 where said monitoring step is carried out by directly monitoring interactions between a network and a user controlled system for accessing information sources through said network.
11. A method as described in claim 1 where earlier user profiles and their associated value ratings are retained after updating.
12. A method for generating a list of information sources having a high estimated value to a user comprising the steps of:
  - a) receiving fixed information for each of a plurality of users;
  - b) initializing profiles for each of said users in said user profile database with said fixed information;
  - c) receiving monitored information relating to activities of a user;
  - d) determining if said monitored information relates to a particular information source and, if so, determine a value rating associated with said user for said particular information source in accordance with said monitored information;
  - e) creating an updated profile for said user in said profile database in accordance with said monitored information;

f) if a value rating is determined, associating said value rating with said updated user profile and recording said value rating in said related value rating database; and

g) determining if said list is to be generated; and if so

g1) calculating an estimated value to said user of an information source as a function of said user's profile, profiles for others of said users, and value ratings for said information source associated with said other users profiles;

g2) repeating step g1 until estimated values have been calculated for all of said information sources;

g3) selecting and outputting to said user, or saving for later output, information sources having relatively higher estimated values.

13. A method as described in claim 12 where said estimated value is calculated as:

$$E_{i,n} = \sum_x (S_{x,n} \cdot V_{i,x}) / X$$

where;

a)  $E_{i,n}$  is the estimated value to user n of information source i in accordance with the values and interests of user n as indicated by user n's current updated profile  $P_n$ ;

b) coefficients  $S_{x,n}$  are a measure of similarity between a profile  $P_x$  of another user x and said profile  $P_n$ ;

c)  $V_{i,x}$  is a value rating for said information source i associated with said profile  $P_x$ ;

d)  $\sum_x$  indicates summation over all profiles  $P_x$  for which  $V_{i,x}$  is defined; and

e) X is the total number of profiles  $P_x$ .

14. A method as described in claim 13 where, as data is accumulated in said databases, statistical methods are used to adjust said coefficients  $S_{x,n}$ .

15. A method as described in claim 12 where said estimated value is calculated as:

$$E_{i,n} = \sum_k C_{i,k} \cdot Z_{k,n}$$

where;

a)  $E_{i,n}$  is an estimated value to user n of information source i in accordance with the values and interests of said user n as indicated by said user n's profile  $P_n$ ;

b)  $C_{i,k}$  are coefficients generated using linear regression methods and relating said information source i to kth variables in profiles;

c)  $Z_{k,n}$  is the value of said kth variable in said profile  $P_n$ ; and

d)  $\sum_k$  indicates summation over all values of k.

16. A method as described in claim 15 where, as data is accumulated in said databases, linear regression methods are used to adjust said coefficients  $C_{i,k}$ .

17. A method as described in claim 12 where said estimated value is calculated by:

a) generating a neural network associated with information source i;

b) training said network using values  $Z_{k,x}$  and  $V_{i,x}$  from profiles in a set  $\{P_x\}$  of profiles for other users x, and for which values  $V_{i,x}$  are defined;

c) determining  $E_{i,n}$  by applying  $Z_{k,n}$  to said network; where

d)  $E_{i,n}$  is an estimated value to user n of information source i in accordance with the values and interests of said user n as indicated by said user n's profile  $P_n$ ;

e)  $Z_{k,n}$  is the value of said kth variable in said profile  $P_n$ ; and

c)  $V_{i,x}$  is a value rating for said information source i associated with a profile in said set  $\{P_x\}$ .

18. A method as described in claim 17 where, as data is accumulated in said databases, said network is further trained.

19. A method as described in claim 12 where said calculating step is carried out using said user's current, updated profile  $P_n^+$ .

20. A method as described in claim 12 where said information source is contact with another user.

21. A method as described in claim 20 where said estimated value is calculated as:

$$EFC_{n,x} = 1 / \sum_k (W_{n,k}(Z_{k,x} - Z_{k,n})^2)$$

where;

a)  $EFC_{n,x}$  is an estimate of the likely fruitfulness of contact with other user x

by user n;

b)  $W_{n,k}$  are coefficients provided by said user n;

c)  $Z_{k,n}$  is the value of a kth variable in said user n's profile  $P_n$ ;

d)  $Z_{k,x}$  is the value of a kth variable in said other user x's profile  $P_x$ ; and

e)  $\sum_k$  indicates summation over all values of k.

22. A method as described in claim 21 where said other user x can select either a private or a public status and will only be included in said list if he or she selects said public status.

23. A system comprising:

a) a server;

b) a profile database;

c) a related value rating database;

d) said server communicating with a profile database and a related value rating database;

e) said server also communicating with a plurality of monitors for monitoring a corresponding plurality of users;

f) said server being programmed to:

- f1) receive fixed information for each of a plurality of users;
- f2) initialize profiles for each of said users in said user profile database with said fixed information;
- f3) monitor a user and receive monitored information relating to said user;
- f4) determine if said monitored information relates to a particular information source and, if so, determine a value rating for said particular information source in accordance with said monitored information;
- f5) create an updated profile for said user in said profile database in accordance with said monitored information; and
- f6) if a value rating is determined, associate said value rating with said updated user profile and record said value rating in said related value rating database.

24. A system comprising:

- a) a server;
- b) a profile database;
- c) a value rating database;
- d) said server communicating with a profile database and a value rating database;
- e) said server also communicating with a plurality of monitors for monitoring a corresponding plurality of users;
- f) said server being programmed to:
  - f1) receive fixed information for each of a plurality of users;
  - f2) initialize profiles for each of said users in said user profile database with said fixed information;
  - f3) monitor a user and receive monitored information relating to said user;
  - f4) determine if said monitored information relates to a particular information source and, if so, determine a value rating for said particular information source in accordance with said monitored information;

f5) create an updated profile for said user in said profile database in accordance with said monitored information;

f6) if a value rating is determined, associate said value rating with said updated user profile and record said value rating in said related value rating database; and

f7) determine if said list is to be generated; and if so

f7A) calculate an estimated value to said user of an information source as a function of said user's profile, profiles for others of said users, and value ratings for said information source associated with said other users profiles;

f7B) repeat step f7A until estimated values have been calculated for all of said information sources; and

f7C) select and output to said user, or save for later output, information sources having relatively higher estimated values.

25. A computer readable medium for providing instructions to a server, said instructions controlling said server to:

a) receive fixed information for each of a plurality of users;

b) initialize profiles for each of said users in said user profile database with said fixed information;

c) monitor a user and receive monitored information relating to said user;

d) determine if said monitored information relates to a particular information source and, if so, determine a value rating for said particular information source in accordance with said monitored information;

e) create an updated profile for said user in said profile database in accordance with said monitored information; and

f) if a value rating is determined, associate said value rating with said updated user profile and record said value rating in said related value rating database.

26. A computer readable medium for providing instructions to a server, said instructions controlling said server to:

- a) receive fixed information for each of a plurality of users;
- b) initialize profiles for each of said users in said user profile database with said fixed information;
- c) monitor a user and receive monitored information relating to said user;
- d) determine if said monitored information relates to a particular information source and, if so, determine a value rating for said particular information source in accordance with said monitored information;
- e) create an updated profile for said user in said profile database in accordance with said monitored information;
- f) if a value rating is determined, associate said value rating with said updated user profile and record said value rating in said related value rating database; and
- g) determine if said list is to be generated; and if so
  - g1) calculate an estimated value to said user of an information source as a function of said user's profile, profiles for others of said users, and value ratings for said information source associated with said other users profiles;
  - g2) repeat step g1 until estimated values have been calculated for all of said information sources; and
  - g3) select and output to said user, or save for later output, information sources having relatively higher estimated values.